

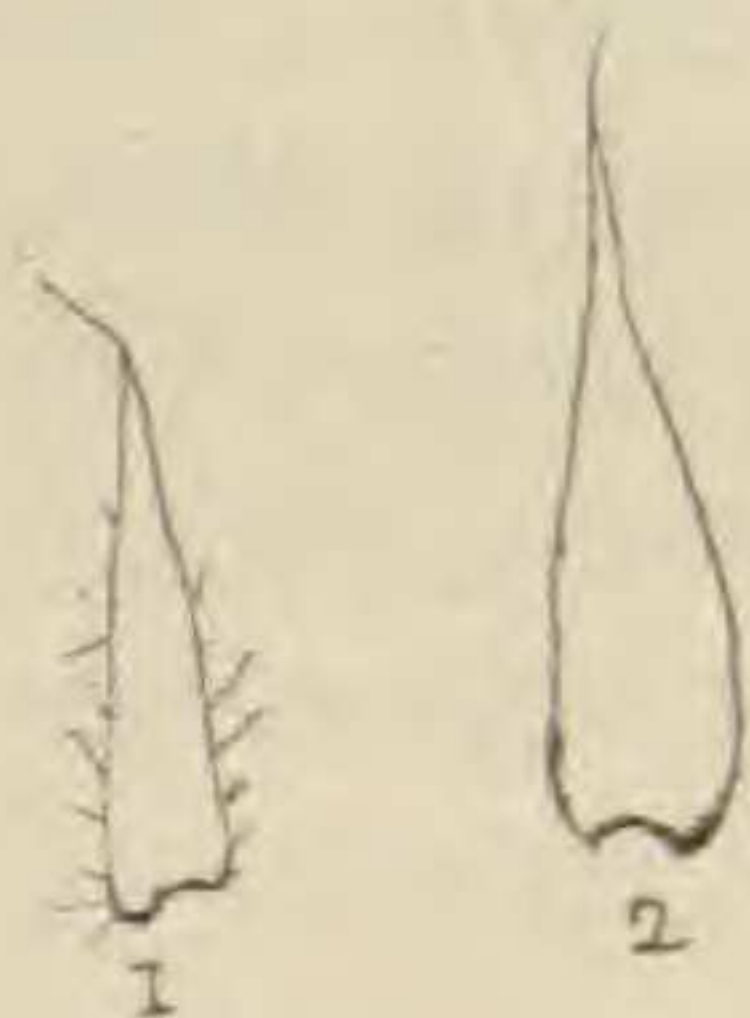
1918, on the surface of tap water and nutrient solutions. The spores of three species proved to be especially long-lived. Those of *Pellaea atropurpurea* L. collected eight years ago possess a very high percentage of germination. Woronin* (1908) sowed spores of *Notholaena Eckloniana* Kunze, a species closely related to *Pellaea*, and found that they germinated twelve years after they had been collected. Spores of *Pellaea gracilis* Hook collected by the writer in 1912 still germinate. The spores of *Aspidium thelypteris* Swartz collected in 1911 germinate at the present time, but not so abundantly as those of the other two species.—W. N. STEIL, *University of Wisconsin, Madison*.

A NEGLECTED CHARACTER IN THE BEECH-FERNS.—Most of our fern books, from Eaton's *Ferns of North America* on, make the statement that the long and broad beech ferns, though undoubtedly different species, are often hard to tell apart; and amateurs may frequently be heard to complain that the statement is only too true. So it is if leaf-form alone is considered; for in ferns, as in other plants, the leaf is apt to vary considerably in shape and cutting with age and from the effect of external conditions. But there is one detail which the writer, in the examination of some scores of specimens, has found nearly invariable and very helpful in deciding doubtful cases.

This character is to be found in the scales which in both species are borne along the main mid-rib on the under side of the frond. They are too small to be seen clearly with the naked eye, but can be readily made out with a low-powered magnifying-glass, such as most of us possess. In the long beech fern they are rather

* Woronin, Helene. (1908) Apogamie und Aposporie bei einigen Farne. *Flora* 98: 101-162. f. 1-72.

numerous, comparatively broad, and pale to bright brown in color. In the broad, they are fewer, sometimes almost entirely absent, narrower than in the other species and usually white or nearly so. The color test may fail, though rarely, but the shape of the scales, once you have learned to recognize it, is a practically certain index to the species.



In the accompanying sketch, fig. 1 represents a scale of the broad beech fern magnified eight times (about the power of the ordinary lens), fig. 2 one of the long beech on the same scale. The marginal hairs shown in fig. 1 are not a good distinctive character; ciliate scales may occur in both species.—C. A. W.

RECORDS OF MONOMORPHIC *EQUISETUM TELMATEIA*—
In his note in the last number of the *JOURNAL*, Mr. J. C. Nelson asks if the monomorphic tendency in this species has been observed by other collectors either in this country or Europe. I have no personal experience to relate, but can perhaps give some information as to records in books not readily accessible to all readers of the *JOURNAL*.

I find no recorded collections from North America other than the "two specimens from British Columbia" mentioned by A. A. Eaton in his account of the North American species of *Equisetum* in the *Fern Bulletin* and the records from New Westminster, B. C., given by Prof. Henry in his recently published *Flora of*